

C. Remarks

The claims are 1, 3, and 11 with claim 1 being independent. Claim 1 has been amended to clarify the invention. Support for this amendment may be found, for example, in the substitute specification at pages 8 and 9, as well as in the drawings. Claim 11 has been amended to reflect the changes made in claim 1. No new matter has been added. Reconsideration of these claims is expressly requested.

Further to the Statement of the Substance of the Interview filed on May 3, 2011, Applicants would like again to thank the Examiner for the courtesies extended during the interview conducted on April 20, 2011. Various issues discussed during the interview are summarised in that submission, as well as in the Examiner's Interview Summary mailed on May 9, 2011. The present Amendment is filed to further address some of these issues.

Both during the interview and in the Interview Summary, the Examiner indicated that U.S. Patent No. 4,825,249 (Oki) appears to inherently disclose impregnation of the coating material into the urethane resin to carry out the reaction, particularly in view of the use of the dipping method. As Applicants' attorney pointed out during the interview, reaction with the groups on the surface of the urethane resin does not necessitate penetration into the resin. Reaction on the surface, rather than below the surface, is explicitly mentioned by Oki at column 2, lines 39-41.

Furthermore, whether or not a material applied to urethane resin penetrates into the resin does not depend solely on how that material is applied. There are various factors that come into play, not the least of which is the identity and molecular weight of the material being applied. As disclosed in the present application, “isocyanate compounds having a small molecular weight have superior permeability. Therefore, these compounds make it easy to control the thickness of the cured layer to be formed....On the other hand, isocyanate compounds having a large molecular weight have inferior permeability...” (substitute specification, page 16, line 22, to page 17, line 4).

Oki utilizes perfluoroethers as a treating agent. These compounds have a larger molecular weight, and therefore are not able to penetrate into the urethane resin. The presently claimed method utilizes 4,4'-diphenylmethanediisocyanate, which penetrates into the urethane blade.

Another factor to consider is the form in which the material is applied. As mentioned previously by Applicants, Oki uses a solution or dispersion of the coating compound, where the solvent is evaporated to leave the reactant on the surface. In accordance with the present invention, however, the isocyanate compound is applied at a temperature at which it is in a liquid state. As a result, it efficiently comes into contact with the urethane resin inside the blade upon impregnation.

Therefore, it is clear that Oki does not inherently disclose impregnation and formation of a cured layer below the surface of the urethane resin substrate.

The other differences between the presently claimed invention and the cited art were discussed during the interview and reiterated in the aforementioned Statement of the Substance of the Interview filed May 3, 2011. Applicants respectfully request that the Examiner review and consider that paper, which includes the discussion regarding the removal steps as claimed and why one skilled in the art would not perform them in the context of the process disclosed Oki.

With respect to JP 2001-343874 (Miura), as mentioned previously by Applicants, this reference does not disclose blowing warm air or hot air on the blade surface to remove the isocyanate compound. As demonstrated by Example 1 and Comparative Example 1 via the data in Table 1 in the present application, when such a removal step is not performed, the surface roughness of the cleaning blade is increased, which leads to undesirable slip-through of the toner. These unexpectedly superior results achieved by the method carried out in Example 1 demonstrate that it would not have been obvious to blow warm air or hot air on the blade surface to remove the isocyanate compound from the surface, much less do so in combination with a second removal step in which a solvent is used.

Accordingly, Applicants again respectfully submit that whether considered separately or in any combination, the documents of record fail to disclose or suggest the presently claimed elements.

Wherefore, withdrawal of the outstanding rejection and passage of the application to issue are respectfully requested.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

/Jason M. Okun/
Jason M. Okun
Attorney for Applicants
Registration No.: 48,512

FITZPATRICK, CELLA, HARPER & SCINTO
1290 Avenue of the Americas
New York, New York 10104-3800
Facsimile: (212) 218-2200